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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,544	03/23/2001	Chang Keun Jun	2598/OJ036	9501

7590 05/22/2002  
DARBY & DARBY P.C.  
805 Third Avenue  
New York, NY 10022

EXAMINER

LE, DANG D

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 05/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/816,544	JUN, CHANG KEUN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Dang D Le	2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because it contains more than 150 words. Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

2. Claims 1-5 are objected to because of the following informalities:
  - Claim 1, line 13, delete "type".
  - Claims 2-5, line 1, replace "method" with – spindle motor --. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 1-5 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in Paper No. 1 filed 3/23/01. In that paper, applicant has stated the Figure 1 is a conventional art, and this statement indicates that the invention is different from what is defined in the claim(s) because Figures 2-6 do not show "a thrust washer at" the "lower end portion" of the shaft as claimed in claim 1, line 10. Figures 2-6 neither show "the thrust plate for shielding" as shown in claim 1, line 16.

5. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is indefinite because it is not clear if the rotor or the magnet is "coupled to the upper end of the rotor shaft" as shown lines 11-12.

In addition, there is insufficient antecedent basis for the following limitations in the claims.

Claim 1 recites the limitations "the inner diameter surface" in lines 12-13, "the center of the upper end portion" in lines 14-15 and "the lower end portion of the frame" in lines 16-17.

Claim 2 recites the limitations "the inner diameter surface" in line 1, "the outer diameter surface" in lines 1-2 and "the outside" in line 4.

Claim 4 recites the limitations "the inner diameter surface" in line 16, "the outer diameter surface" in lines 16-17 and "the outside" in line 19.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi in view of Yamashita et al.

Regarding claim 1, Takahashi shows a spindle motor (Figure 1), comprising:

- A frame (10) upwardly extruded in a tubular shape at its center portion and having a holder (12) having a core (42) mounted to its outer diameter portion;
- A metal bearing (34) press-fit to the holder of the frame and having a stepped portion (140, Figure 9) at its outer peripheral surface;
- A shaft (56) rotatably inserted into the metal bearing.
- A rotor having a magnet (57) coupled to the upper end of the shaft for communicating with the core at the inner diameter surface, and an annular type mounting groove (between 58a) having an engaging portion (58a) extruded at the center of the upper end portion at equal intervals;
- A thrust plate (20) for shielding the lower end portion of the frame into which the metal bearing is press fit; and
- A stopper (46) of which one end is inserted into the mounting groove of the rotor to be fixed to the engaging portion (58a) and of which the other end portion is supported by one side of the frame (12).

Takahashi does not show the shaft provided with a thrust washer at its lower end portion.

Yamashita et al. show the shaft provided with a thrust washer (10) at its lower end portion for the purpose of retaining the rotor in place.

Since Takahashi and Yamashita et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the shaft with a thrust washer at its lower end portion as taught by Yamashita et al. for the purpose discussed above.

Regarding claims 2 and 4, it is noted that Takahashi also shows the stopper (Figure 4) comprising:

- A cylindrical body closely contacted and fixed to the inner diameter surface of the holder (12) while covering the outer diameter surface of the metal bearing; and
- A thin flange unit (46d) vertically bent to one end of the body, extended to the outside, passing through the mounting groove, and thus engaged to the engaging portion of the rotor.

Regarding claim 3, it is noted that Takahashi also shows the flange unit having a plurality of insertion grooves (46d1) having such a size that the engaging portion can pass through in order to prevent position interference with the engaging portion when the flange unit is inserted into the mounting groove (Figure 7).

Regarding claim 5, it is noted that Takahashi also shows the flange unit being molded into rubber having an excellent elastic deformability (column 4, lines 45-46).

***Information on How to Contact USPTO***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

Application/Control Number: 09/816,544  
Art Unit: 2834

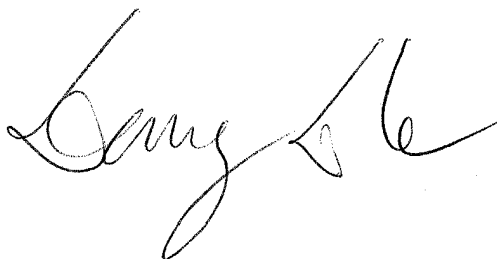
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

DDL  
May 18, 2002

PL

A handwritten signature in cursive script, appearing to read "Lamy 66", is written in the center of the page.